The Boston Meeting of the Mining Engineers.

The annual meeting of the American Institute of Mining Engineers was opened at Hotel Brunswick, in this city, Feb. 20.

The first session opened by an address of welcome by Mr. Edward Atkinson, who is the acknowledged leader and representative of the manufacturing interests of the Eastern States. Mr. Atkinson was followed by Mr. Thomas Doane, President of the Boston Society of Civil Engineers. After a short reply by Mr. R. P. Rothwell, the president, the meeting was formally opened, Mr. James C. Bayles reading a paper on the "Microscopic Analysis of Steel." He enlarged on the fact that, although a great number of physical tests as well as chemical analyses had been made, nothing connected the two series of results; and he thought that the microscopic analysis might serve this purpose when more fully developed.

Dr. T. Sterry Hunt then read a very interesting paper upon "Coal and Iron in Alabama." After the election of a large number of new members, the meeting adjourned.

The second session was held Wednesday morning, in the Institute of Technology.

Prof. Richards opened with a paper upon the "Peculiarities of Block Tin obtained by Smelting the Residuum after Distilling off the Mercury from an Amalgam of Mercury and Tin."

Mr. H. W. Howe followed with a paper on a "Suggested Cure for Blast Furnace Chills"; and Prof. W. P. Blake upon the "Metallurgy of Nickel."

Mr. A. S. Bower, civil engineer of St Neots, England, was then introduced, and read a very interesting paper upon the "Bower-Barff Process." The object of the paper was to show what might be done in protecting iron and steel from rust by forming a coating of magnetic oxide upon the surface by an inexpensive process. To Prof. Barff is due the credit of being the first to undertake to coat iron and steel with magnetic oxide for this purpose. His process consists in subjecting the iron and steel articles to the action of superheated steam; and when they are at temperatures sufficiently high, three equivalents of iron combine with four of oxygen, forming one equivalent of magnetic oxide.

After a series of experiments Mr. Bower found that, by burning a fuel gas similar to that produced by the Siemens generator in a large excess of air, the articles to be oxidized were coated with magnetic oxide close to the iron and a coating of sesquioxide over all. This outside coating might then be reduced to the magnetic oxide by cutting off the excess of air and burning the fuel gas alone.

Each process is good for special kinds of work; thus the Bower process is much quicker for cast iron, while for wrought iron the coating is apt to scale off, unless previously rusted. Steel can be equally well treated by either process.

In the afternoon an excursion was made to the sewerage pumping engines designed by Mr. E. D. Leavitt, Jr. They are compound vertical engines, and have a capacity of 25,000,000 gallons per day. The fly-wheel is 36 feet in diameter, and makes 11 revolutions per minute.

A visit was then made to the Norway Iron Works and the Carson Sewer Excavating Apparatus.

The third session was held in the evening, at the Institute, and was opened with a paper by Prof. W. C. Kerr upon the "Geological Relations of the Topography of the South Appalachian Plateau," followed by Dr. T. Egleston on the "Collection of Flue Dust at Ems."

Mr. A. F. Hill then read an elaborate paper upon the "Shop Treatment of Steel."

On Thursday morning a visit was made to the testing machine at Watertown. After witnessing the testing of a steel bar made at the Norway Iron Works, the party was driven to Harvard University, where the principal buildings were inspected.

The fourth session was held in Boylston Hall, Prof. L. P. Sharples reading a paper upon the "Strength of American Woods."

In the evening nearly two hundred ladies and gentlemen sat down to the subscription dinner at Hotel Brunswick.